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Claims

- SAC*
- B*
- sub I3*
- A*
- CA*
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1. A DNA molecule encoding alkaline liquefying α -amylase activity.
 2. A DNA molecule as defined in Claim 1, which encodes the amino acid sequence described in Sequence No. 1 or a functional fragment thereof.
 3. A DNA molecule encoding a protein exhibiting alkaline liquefying α -amylase activity and possessing an amino acid sequence described in Sequence No. 2 in which one or more amino acids are substituted, added, deleted, inverted, or inserted.
 4. A DNA molecule as defined in any one of Claims 1 through 3, further comprising a nucleotide sequence for regulating expression of a gene.
 5. A recombinant DNA containing the DNA molecule of ~~Claim 4~~ ^{Claim 2} of any one of Claims 1 through 4.
 6. A transformed microorganism harboring the recombinant DNA of Claim 5.
 7. A method for producing alkaline liquefying α -amylase, comprising culturing the transformed microorganism of Claim 6 and isolating the alkaline liquefying α -amylase produced by the microorganism.
 8. A DNA molecule which hybridizes to a DNA sequence which is complementary to the nucleic acid sequence of SEQ ID No. 2.
 9. A protein encoded by the DNA molecule of ~~Claims 1 through 4~~ ^{Claim 2}.
 10. A DNA molecule which hybridizes to a DNA sequence which is complementary to the nucleic acid sequence of SEQ ID No. 2, wherein said DNA molecule encodes a protein having alkaline

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liquefying ~~E~~ amylase activity.

11. A protein encoded by the ~~the~~ DNA molecule of Claim 10.
12. The recombinant DNA plasmid pAML100.
13. The recombinant *E. coli* strain HB101(pAML100).

ADD A'

Add 33

~~Add~~
~~E2~~

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C1

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